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# Library Services for Mobile Devices

Toby Greenwalt

*Skokie Public Library*, TGreenwalt@skokielibrary.info

Jacob Hill

*Elmhurst College*, jacobh@elmhurst.edu

Colin Koteles

*College of Dupage*, koteles@cod.edu

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# Library Services for Mobile Devices

ILA 2009 - Peoria, Illinois  
October 7, 2009

Toby Greenwalt - Skokie Public Library  
Jacob Hill - Elmhurst College  
Colin Koteles - College of DuPage

# Background

- Skokie Public Library

- *FY 2008-2009 LSTA Grant Project to develop a platform for current and future mobile library services*
- *Stressing multiple levels of access to traditional library offerings*

- College of DuPage

- *2007 "experiment" to create low-cost, low-maintenance mobile web access to basic Library services*
- *Marketing is just beginning; looking at "next steps"*

- Elmhurst College Library

- *mobile resources grew out of a winter 2008/09 collaboration between Jacob Hill & Kyle Jones*
- *Our overall goal was finding ways to support the mobile population on our campus, at no cost.*

# The Mobile Wave

**Mobile data and communications activities: by Age**  
(Those who have a cell phone or personal data assistant  
who have ever done one of listed activities)

	18-29	30-49	50-64	65+
Send or receive text messages	85	65	38	11
Take a picture	82	64	42	22
Play a game	47	29	13	6
Send or receive email	28	21	12	6
Access the internet for news, weather, sports, or other information	31	22	10	6
Record a video	34	19	8	3
Play music	38	16	5	2
Send or receive instant messages	26	18	11	7
Get a map or directions to another location	18	16	9	5
Watch video	19	11	4	2
Percent who have done at least one of these activities	96%	85%	63%	36%
Median number of activities <u>ever</u> done	4	2	1	0
Number of cases	311	616	456	310

Pew Internet & American Life Project, [3/5/2008](#)

# The Mobile Wave

**Mobile data and communications activities: by Age**  
(Those who have a cell phone or personal data assistant  
who have ever done one of listed activities)

	18-29	30-49	50-64	65+
Send or receive text messages	92%	76%	50%	17%
Take a picture	87	71	59	29
Play a game	46	32	12	6
Send or receive email	34	30	17	7
Access the internet for news, weather, sports, or other information	39	31	14	4
Record a video	32	21	11	2
Play music	43	21	7	5
Send or receive instant messages	34	21	12	7
Get a map or directions to another location	27	24	11	5
Watch video	24	15	7	3
Percent who have done at least one of these activities	93%	80%	59%	27%
Median number of activities <u>ever</u> done	4	2	1	0
Number of cases	296	578	506	399

Pew Internet & American Life, [7/22/2009](#)

# The Mobile Landscape



(via [Lance and Erin](#))

# Mobile Technologies : Devices

- Voice calls (hopefully)
- Address book/Caller ID
- Calendar
- Text Messaging

Generally assume "flip" or "candybar" shape.





# Intermediate Mobile Features

- Still and video cameras
- Microphone/note recording
- Audio/video playback
- Some Web integration
- Full keyboards on many
- Not much customization



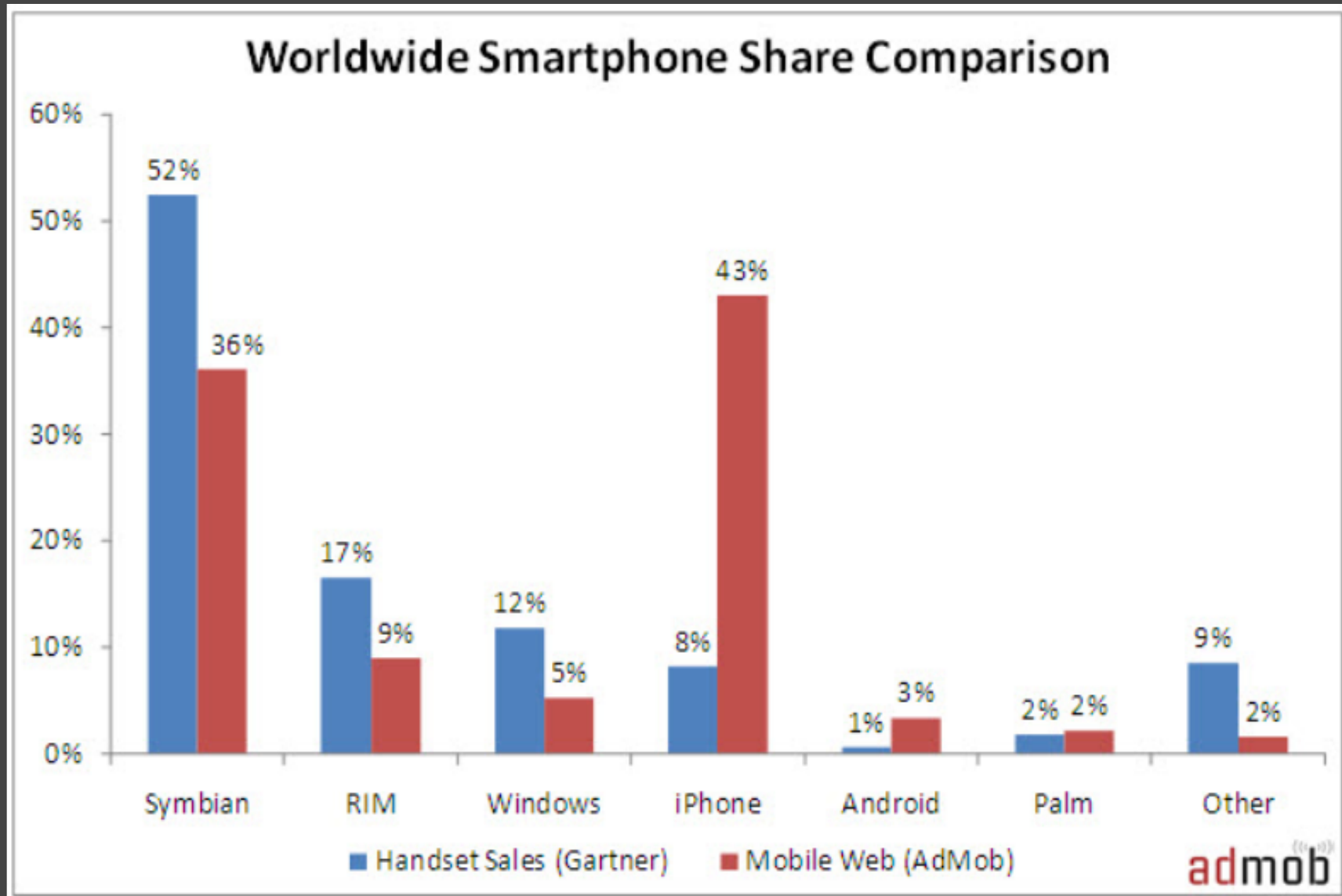


# Advanced Mobile Features

- Possess true "operating systems"
- Advanced Web capabilities
- PC integration
- Utilize built-in GPS
- Downloadable applications
- Many use wireless as well as mobile networks



# Mobile Web Usage



Admob Mobile Metrics Report, [April 2009](#)

# Mobile Technologies - Capabilities

In terms of Libraries:

- Mobile Websites
  - News & basic information
  - Library & staff contacts
- Mobile search
  - Web
  - OPAC
  - Databases
- Mobile communication
  - Phone
  - SMS/IM
  - Web (Facebook, Twitter, etc.)
  - E-mail

# "Myths" of mobile usability

- “It’s really do-or-die when it comes to SMS and libraries”
  - Presenter comment at *Handheld Librarian* conference, July 2009
- Training
  - Services can be bundled with extant tools
- *Set it and forget it...*
  - Mobile uses thrive on dynamic content

# More Myths

- Marketing- don't assume they'll find it
- Texting: the perceived vs. actual
  - Texting plans cost \$
  - Texting not ideal medium for reference interview
  - Response time, brevity crucial
- Switching communication methods
  - Knowing when to end the text conversation
- Has Texting "replaced" the phone call?

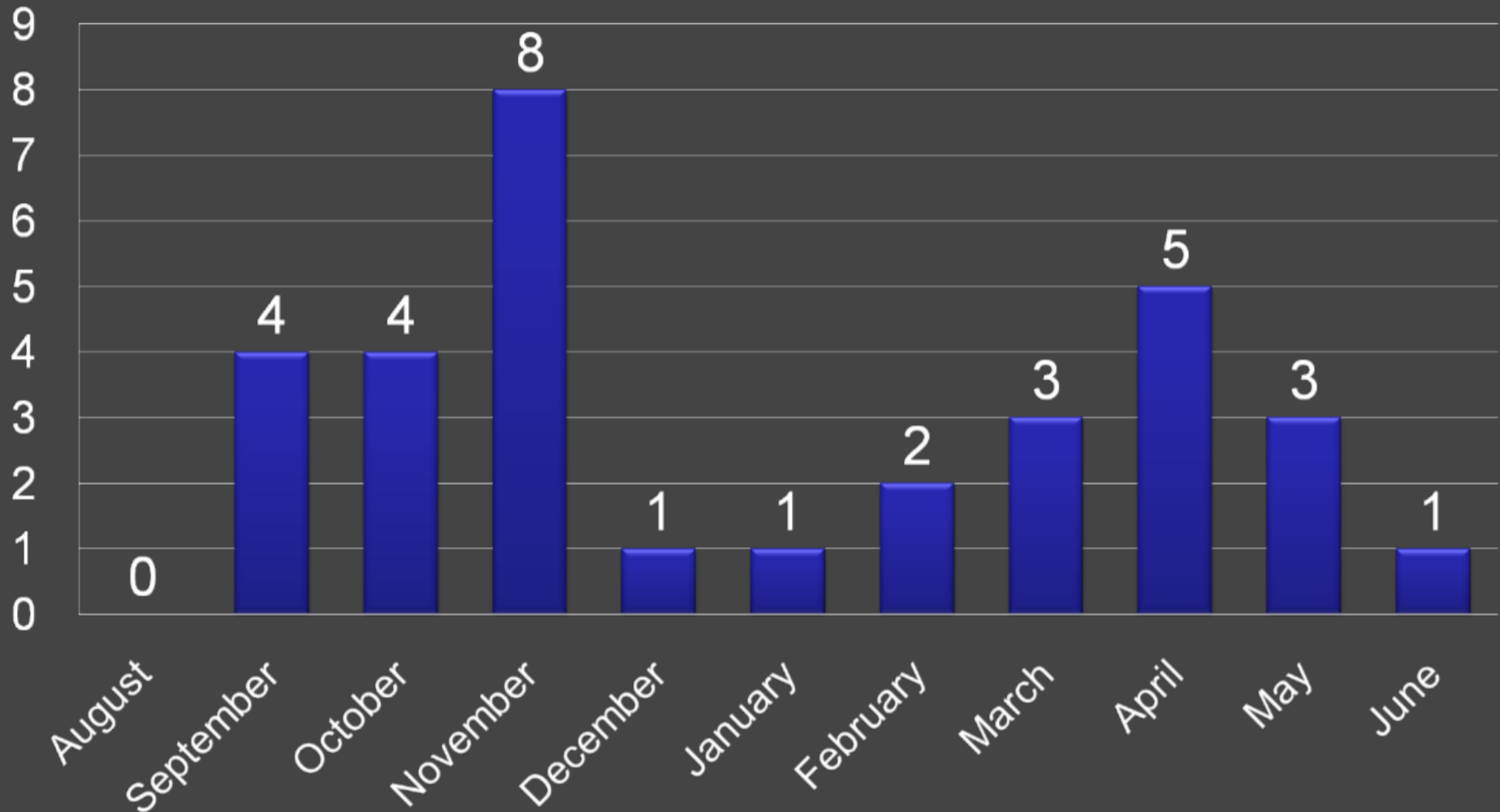
# Texting outpacing calling

## Average Number of Monthly Calls vs. Text-Messages Amongst U.S. Wireless Subscribers by Age (Q2 2008)

	Calls	Texts
All Subs	204	357
12 & Under	137	428
Ages 13-17	231	1742
Ages 18-24	265	790
Ages 25-34	239	331
Ages 35-44	223	236
Ages 45-54	193	128
Ages 55-64	145	38
Ages 65+	99	14

*Source: Nielsen Telecom Practice Group*

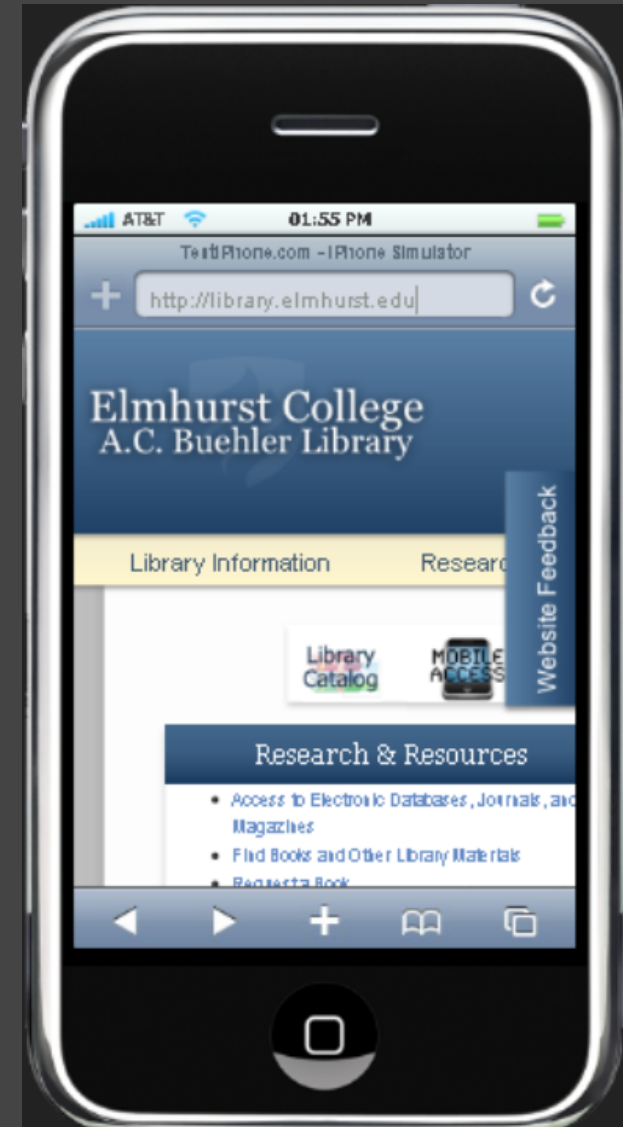
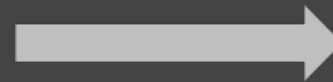
# EPL Text questions, Aug 08-June 09





# Other myths: Mobile websites

- Mobile devices can't display standard web content optimally.
  - However, in a 2009 web usability test, sites designed for mobile devices had a **"successful use" rate averaging 64% (vs. 53% when using standard sites).**\*
- Even the iPhone's "ideal" large display parses content, and requires tedious scrolling.



\*Nielsen, Jakob (2009, February 19). Mobile Web 2009 = Desktop Web 1998. Retrieved March 4, 2009, from <http://www.useit.com/alertbox/mobile-usability.html>

# Mobile Content

## Varying levels of commitment

- Transcoded design
- Universal design
- Mobile design
- OPAC (currently limited by vendor)

[m.skokielibrary.info](http://m.skokielibrary.info) | [m.codlibrary.org/](http://m.codlibrary.org/) | [library.elmhurst.edu/m/](http://library.elmhurst.edu/m/)

# Mobile Content : Transcoded Design

- Transcoded design
  - "Automagic"
  - Little effort
  - Content somewhat changed
  - Transcoder determines design
  - Little control
  - Out of the box services - Mobilesitegalore, Winksite, Google Mobile Sites
    - Examples: Fremont
    - C.O.D. Library mobile OPAC search

# Mobile Content: Universal Design

- Universal design
  - Up-front effort
  - Content unchanged across platforms
  - Device determines design
  - More control

# Mobile Content: Universal Design

- Universal design
  - Comply with Web standards
  - Separate content from presentation (CSS)
  - Use semantic markup
  - Provide text alternatives to images and multimedia
- Design "degrades gracefully" across platforms
  - Content usable in "standard" browsers, mobile devices, voice browsers, etc.
  - Can enhance accessibility

# Mobile Content : Mobile Design

- Mobile design
  - Up-front effort; possible ongoing effort
  - Content optimized for mobile
    - Concise, single-purpose, spatial, etc.
  - Designer/content-creators determine design
    - `<div class="handheld_only">`
    - `<a href="tel:+#####">`
  - Most control
    - But what's your target device?
  - Can enhance accessibility

# SMS (text messages)

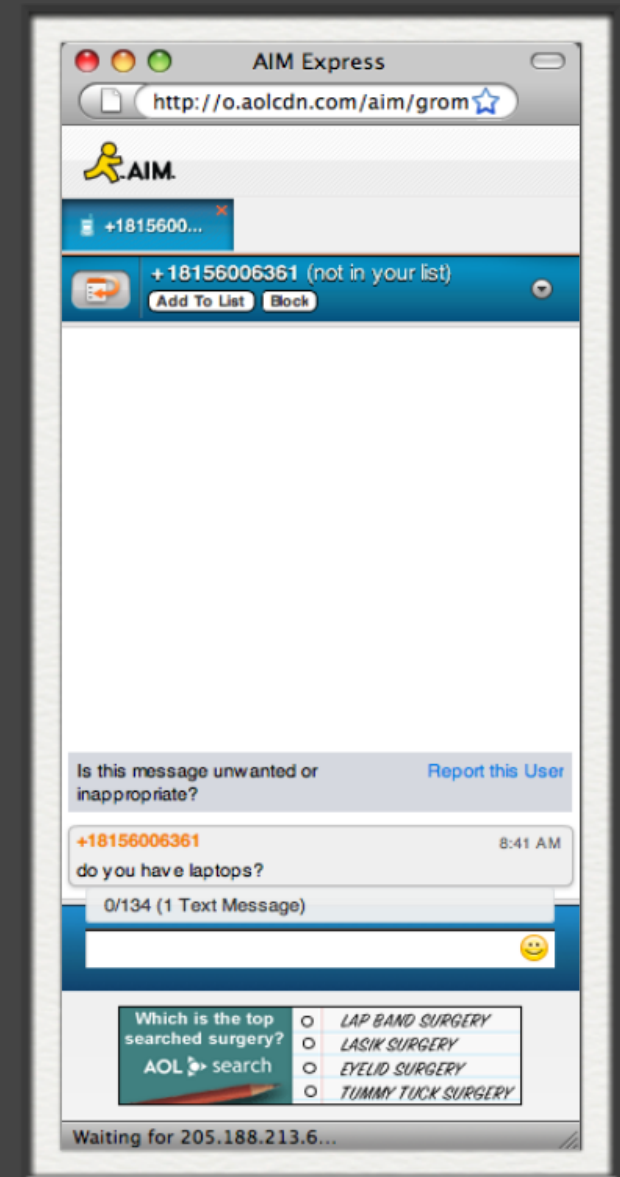
3 major choices for reading and responding to text messages:

1. Use a free instant messaging client as an intermediary (AIM, Google Voice).
2. Use a fee-based intermediary tool ([Text a Librarian](#), [LibraryH3lp](#), [MyInfoquest](#), [Shoutbomb](#))
3. Subscribe to your own mobile device plan, and use a mobile device to answer texted questions



# The AIM Option

- AIM (America On-Line Instant Messaging) tool. Free to create a screenname account.
- Patrons dial 265010 from their mobile device, and type your screenname, a colon, and their question.
- Respond directly to text questions as you would a IM chat.



# Issues surrounding Texting support

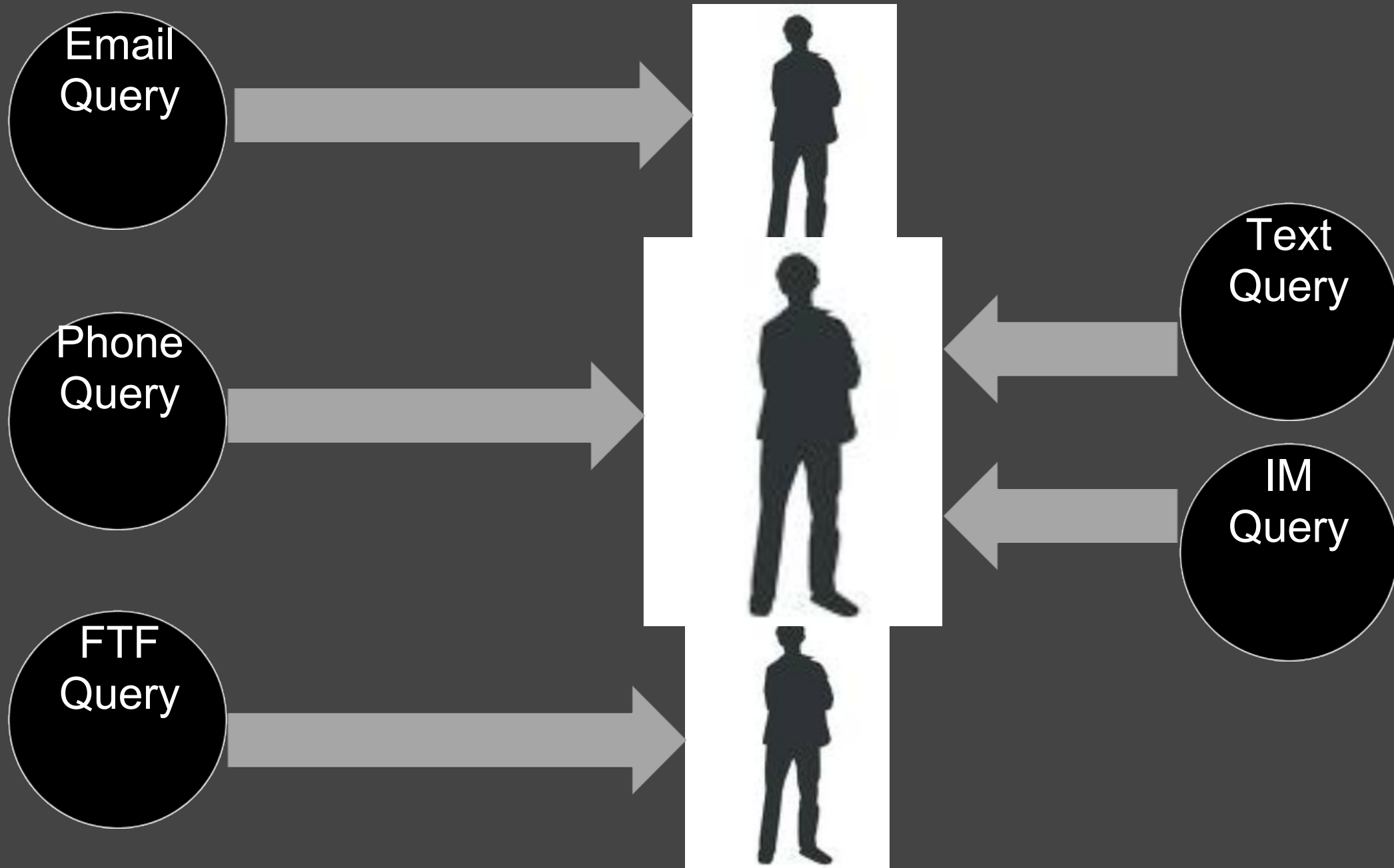
How do I send a text/SMS message to the reference desk librarian?

Each phone will be different, but start by entering the text/SMS section of your mobile phone:

- ▶ Type **265010** for the number the message should be sent to
- ▶ In the message section, type "**texteclib:**" (lose the quotes, but don't forget the colon)
- ▶ Type your question after the colon

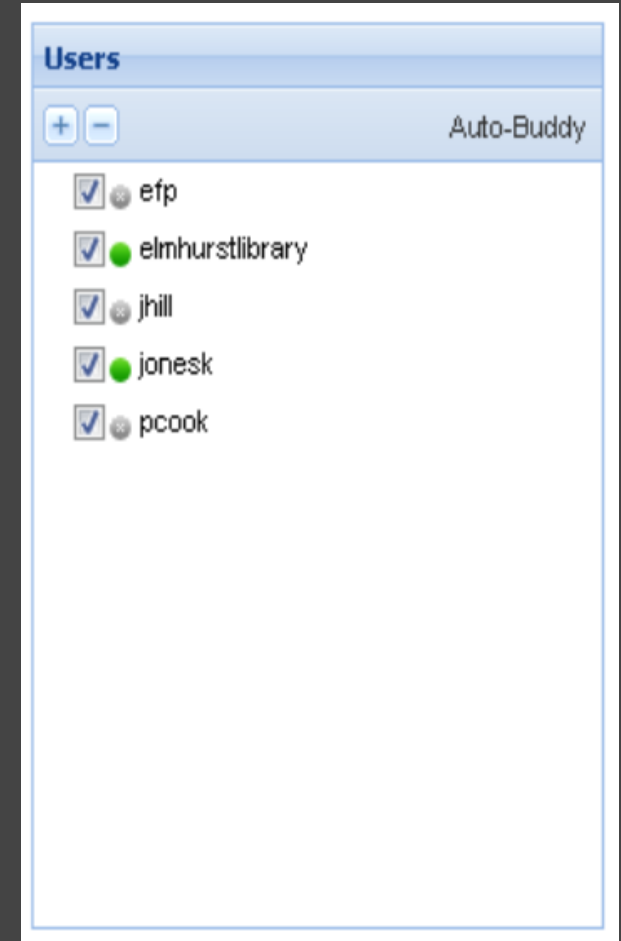
- Free tools can disappear at any time
- You need to market the service
- You need to identify and answer text questions quickly (nature of medium) and with brevity (screen size limitations)
- Funneling effect of IM/SMS traffic (most tools allow only 1 "responder" at a time)

# Problematic SMS/IM reference model

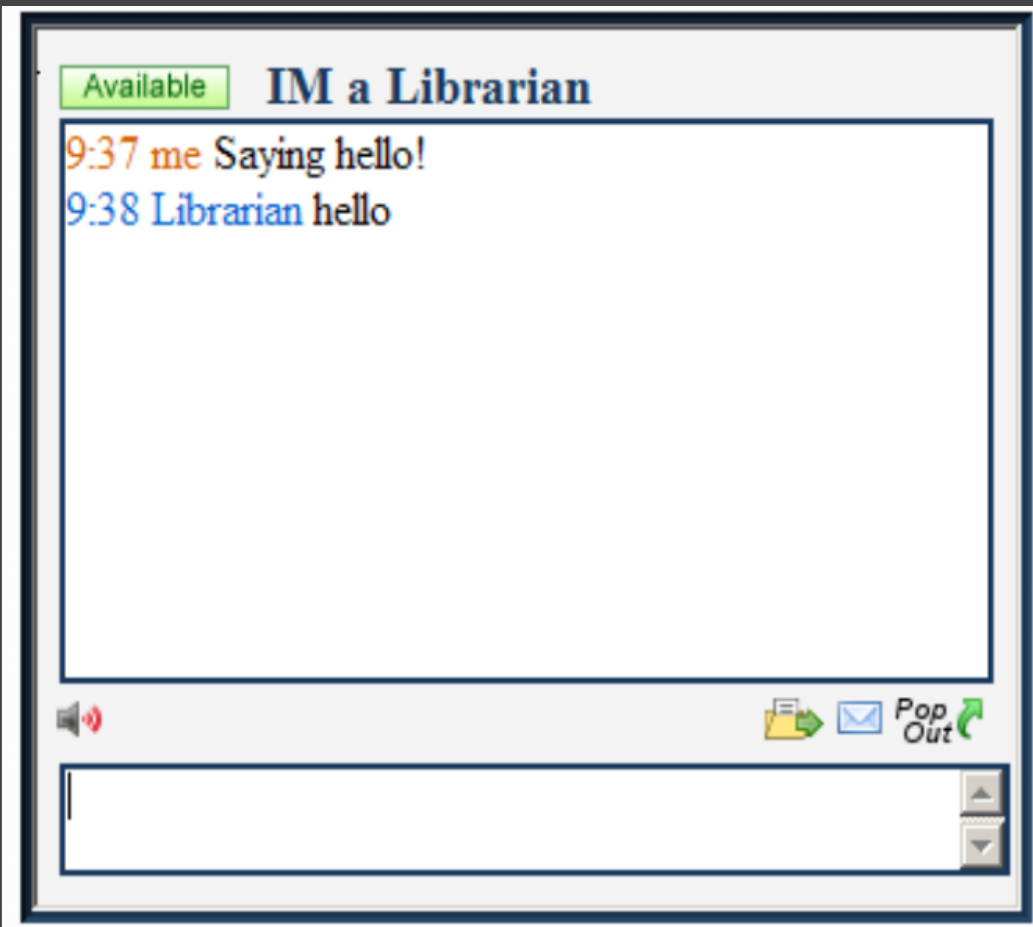


# LibraryH3lp and Text a Librarian

- [TextaLibrarian](#) and [LibraryH3lp](#) (fee services) are tools that enable IM and SMS *queuing*.
- Queuing is the future for mobile devices...several users can respond to a single texted question. (1<sup>st</sup> responder “wins”)
- Minimizes the funnel effect
- See also:  
Altarama/MyInfoQuest, [Velti](#)

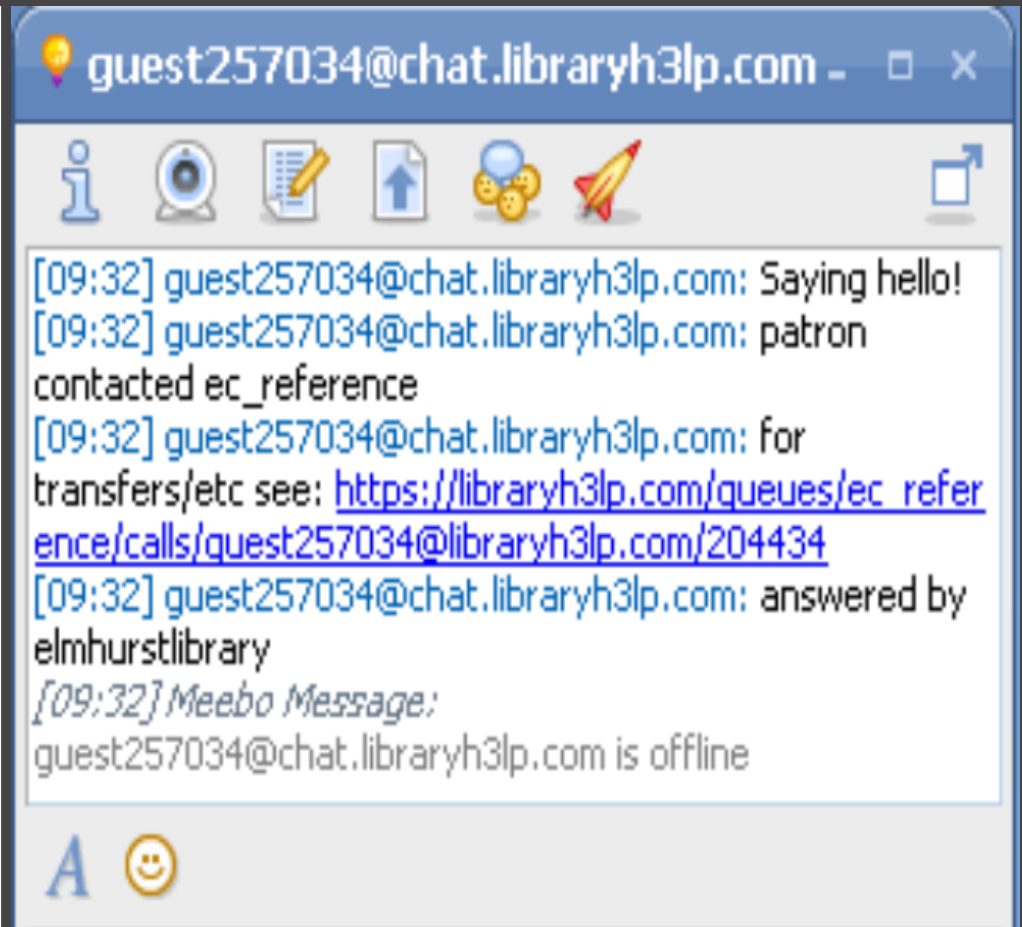


# Patron side



(Patron IMing in library website chat box or texting w/mobile device)

# Library side



(view of Staff member logged in to chat client)

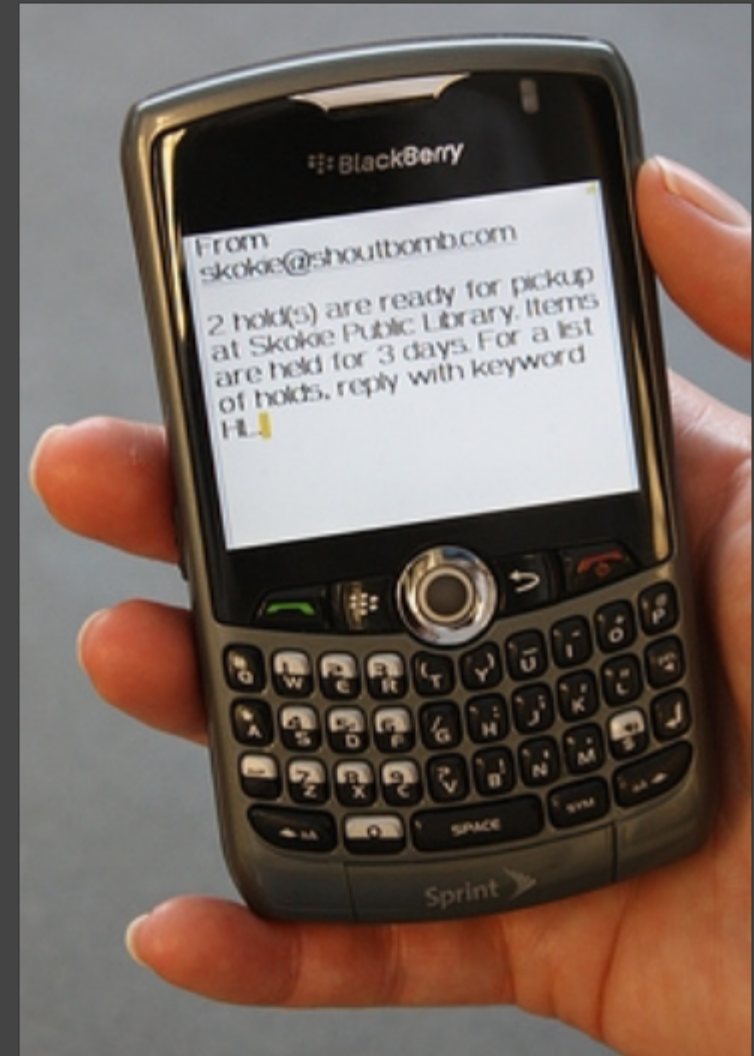
# Google Voice- New Player

- Free service that allows you to aggregate several phones under 1 Google number.
- Number is also a direct SMS portal- can receive SMS traffic and forward to email.
- LibraryH3lp.com can pull Google Voice messages, so they appear as IMs.

# Shoutbomb SMS Alerts

- Holds, Overdues, Courtesy Notices, and Renewals
- Supplement to email or phone notices
- Single point of access for other library services
- Minimize use of keywords and shortcodes

Text SIGNUP to  
[skokie@shoutbomb.com](mailto:skokie@shoutbomb.com)





# The Shoutbomb Gateway

- Granted Shoutbomb tunnel access through Millennium
- Holds/Courtesy/Overdue reports generated daily
- Process automated using TCL script
- Files sent to Shoutbomb using SFTP
- Report resolved against list of opted-in patrons
- Records stored for 5 days and deleted
- Uses XMPP protocol for linkage with LibraryH3lp

# Implementation, Training, Support

- Organizational buy-in
- Staff training up-front and ongoing
  - Awareness of and practice with multiple devices
- Marketing must be built into overall plan

# Marketing and Promotion

- Newsletter
- Signage
- Website
- Moo Cards
- Brochure
- Lobby Card
- Blog posts
- Facebook advertising
- Twitter



# Marketing and Promotion

- Newsletter
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- Lobby Card
- Blog posts
- Facebook ads
- Twitter



m.codlibrary.org

- Text/IM the library
- Search the collection
- Read news & events
- View hours & closings



Reference: (630) 942-3364  
Circulation: (630) 942-2106

# Creating a Mobile-Friendly Atmosphere



**Polite  
cell phone  
use permitted  
? Where ?**

**1st Floor: Lobbies**  
**2nd Floor: By stairs  
and in study rooms**

**Turn ringers off**

**Respect your  
neighbors**



 **Skokie Public Library**

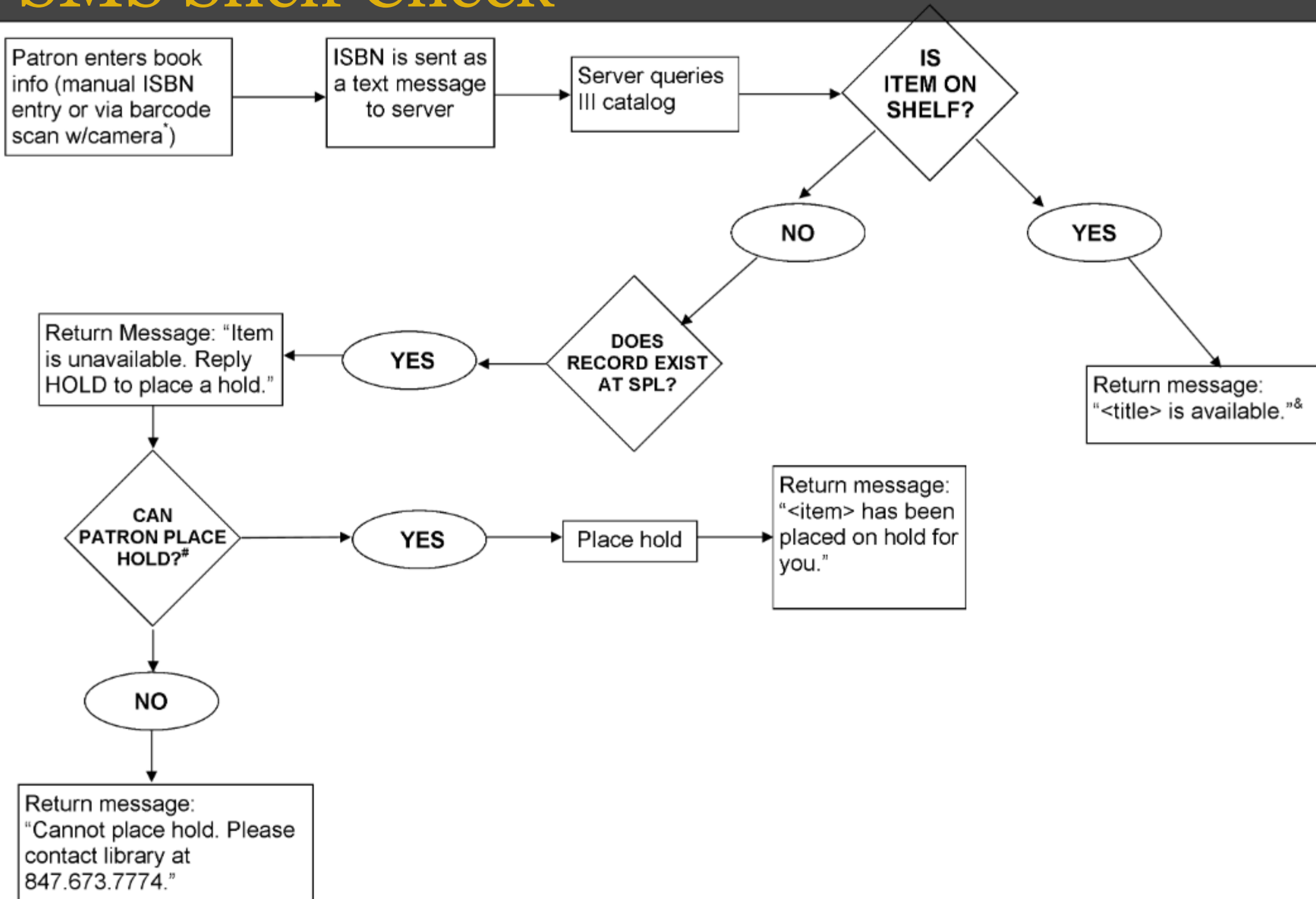
([Hugovk](#), via Flickr)



# Future of Mobile Tools & Technology

- Possibly more extensive deployment of queuing tools for communication
- Possibly LESS mobile website design
- Google Wave
- Focus on meeting specific needs of your library users -> App driven
- Seamlessness - integrating with other modes of online communication

# SMS Shelf Check





# QR Codes



Make your own QR codes at [Snappr](https://snappr.io/)

(photo credit: [Michael Stephens](#))

# Augmented Reality (AR)



Nearest Subway iPhone App by AcrossAir

# Any Questions?

Thank You!

[delicious.com/tgreenwalt/handheld](http://delicious.com/tgreenwalt/handheld)